

WEST Search History

DATE: Sunday, February 09, 2003

<u>Set Name</u>	<u>Query</u>	<u>Hit Count</u>	<u>Set Name</u>
side by side			result set
<i>DB=USPT,PGPB,JPAB,EPAB,DWPI; PLUR=YES; OP=ADJ</i>			
L5	L2 not l3	56	L5
L4	L3 and l2	7	L4
L3	L1 with model\$	7	L3
L2	L1 with method	63	L2
L1	amylase near5 (muta\$ or variant)	868	L1

END OF SEARCH HISTORY

WEST[Generate Collection](#)[Print](#)**Search Results - Record(s) 1 through 7 of 7 returned.**☐ 1. Document ID: US 6440716 B1

L4: Entry 1 of 7

File: USPT

Aug 27, 2002

US-PAT-NO: 6440716

DOCUMENT-IDENTIFIER: US 6440716 B1

TITLE: .alpha.-amylase mutants

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KIMC	Draw Desc	Image
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☐ 2. Document ID: US 6162628 A

L4: Entry 2 of 7

File: USPT

Dec 19, 2000

US-PAT-NO: 6162628

DOCUMENT-IDENTIFIER: US 6162628 A

TITLE: Maltogenic alpha-amylase variants

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KIMC	Draw Desc	Image
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☐ 3. Document ID: US 6022724 A

L4: Entry 3 of 7

File: USPT

Feb 8, 2000

US-PAT-NO: 6022724

DOCUMENT-IDENTIFIER: US 6022724 A

TITLE: .alpha.-amylase mutants

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KIMC	Draw Desc	Image
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☐ 4. Document ID: US 5989169 A

L4: Entry 4 of 7

File: USPT

Nov 23, 1999

US-PAT-NO: 5989169

DOCUMENT-IDENTIFIER: US 5989169 A

TITLE: .alpha.-amylase mutants

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KIMC	Draw Desc	Image
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☐ 5. Document ID: US 5830837 A

L4: Entry 5 of 7

File: USPT

Nov 3, 1998

US-PAT-NO: 5830837

DOCUMENT-IDENTIFIER: US 5830837 A

TITLE: Amylase variants

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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☐ 6. Document ID: US 5801043 A

L4: Entry 6 of 7

File: USPT

Sep 1, 1998

US-PAT-NO: 5801043

DOCUMENT-IDENTIFIER: US 5801043 A

TITLE: Amylase variants

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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☐ 7. Document ID: US 5753460 A

L4: Entry 7 of 7

File: USPT

May 19, 1998

US-PAT-NO: 5753460

DOCUMENT-IDENTIFIER: US 5753460 A

TITLE: Amylase variants

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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Terms	Documents
L3 and l2	7

Display Format:

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WEST☐ **Generate Collection** **Print**

L5: Entry 19 of 56

File: USPT

Mar 6, 2001

US-PAT-NO: 6197565

DOCUMENT-IDENTIFIER: US 6197565 B1

TITLE: .alpha.-Amylase variants

DATE-ISSUED: March 6, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Svensden; Allan	Birkerod			DK
Kjaerulff; Soeren	Vanlose			DK
Bisgaard-Frantzen; Henrik	Bagsvaerd			DK
Andersen; Carsten	Vaerloese			DK

US-CL-CURRENT: 435/202; 435/204, 435/210, 510/226, 510/236, 510/320, 510/392, 510/530

CLAIMS:

What is claimed is:

1. A variant of a parent Termamyl-like .alpha.-amylase, having a substitution selected from the group consisting of: E376K, S356A, Y358F, and combinations of any of the foregoing, using the numbering of SEQ ID NO: 4.
2. The variant of claim 1, wherein the parent Termamyl-like .alpha.-amylase is derived from a strain of B. licheniformis, B. amyloliquefaciens, B. stearothermophilus, Bacillus sp. NCIB 12289, NCIB 12512, NCIB 12513 or DSM 9375.
3. The variant according to claim 2, wherein the parent .alpha.-amylase is derived from B. licheniformis strain ATCC 27811.
4. The variant according to claim 1, wherein the parent Termamyl-like .alpha.-amylase comprises a sequence selected from the group consisting of SEQ ID NOS: 1, 2, 3, 4, 5, 6, 7, and 8.
5. The variant according to claim 1, wherein the parent Termamyl .alpha.-amylase has an amino acid sequence which has a degree of identity to SEQ ID NO: 4 of at least 65%.
6. The variant according to claim 1, wherein the parent Termamyl-like .alpha.-amylase is a hybrid of the B. licheniformis .alpha.-amylase shown in SEQ ID NO: 4 and B. amyloliquefaciens .alpha.-amylase shown in SEQ ID NO: 5.
7. The variant according to claim 6, wherein the parent hybrid Termamyl-like .alpha.-amylase is LE174.
8. The variant according to claim 1, wherein the parent .alpha.-amylase further comprises a mutation in one or more of the following positions: K176, I201 and H205 (using the numbering in SEQ ID NO: 4).
9. The variant according to claim 8, wherein the parent .alpha.-amylase comprises one or more of the following substitutions: K176R, I201F and/or H205N (using the numbering in SEQ ID NO: 4).

10. The variant according to claim 9, wherein the parent .alpha.-amylase has the following substitutions: K176R+I201F+H205N using the numbering in SEQ ID NO: 4).
11. A detergent additive comprising an .alpha.-amylase variant according to any one of claim 1, optionally in the form of a non-dusting granulate, stabilised liquid or protected enzyme.
12. A detergent composition comprising an .alpha.-amylase variant according to claim 1.
13. A detergent composition according to claim 12 further comprising an enzyme selected from the group consisting of a protease, a lipase, a peroxidase, another amylolytic enzyme, a cellulase, or combinations of any of the foregoing.
14. A manual or automatic dishwashing detergent composition comprising an .alpha.-amylase variant according to any of claim 1.
15. A dishwashing detergent composition according to claim 14 further comprising an enzyme selected from the group consisting of a protease, a lipase, a peroxidase, another amylolytic enzyme, cellulase, and combinations of any of the foregoing.
16. A manual or automatic laundry washing composition comprising an .alpha.-amylase variant according to claim 1.
17. A laundry washing composition according to claim 16, further comprising an enzyme selected from the group consisting of a protease, a lipase, a peroxidase, an amylolytic enzyme, a cellulase, and combinations of any of the foregoing.
18. A composition comprising a mixture of:
 - (i) a first .alpha.-amylase comprising a first variant according to claim 1 and;
 - (ii) a second .alpha.-amylase selected from the group consisting of:
 - (a) a second variant according to claim 1, wherein said first and second variants are derived from different parent .alpha.-amylases;
 - (b) the .alpha.-amylase from *B. stearothermophilus* having the sequence shown in SEQ ID NO: 3;
 - (c) the .alpha.-amylase from *B. licheniformis* having the sequence shown in SEQ ID NO: 4; and
 - (d) a hybrid .alpha.-amylase comprising a N-terminal part of the *B. amyloliquefaciens* .alpha.-amylase shown in SEQ ID NO: 5 and a C-terminal part of the *B. licheniformis* .alpha.-amylase shown in SEQ ID NO: 4.
19. The composition according to claim 18, wherein the parent hybrid Termamyl-like .alpha.-amylase is LE174.
20. The composition according to claim 19, wherein the parent Termamyl-like .alpha.-amylase is LE174 with an alteration in one or more of the following positions: K176, I201 and H205.
21. The composition according to claim 20, wherein the parent Termamyl-like .alpha.-amylase is LE174 with one or more of the following substitutions: K176R, I201F and H205N.

WEST[Generate Collection](#)[Print](#)**Search Results - Record(s) 11 through 20 of 56 returned.**☐ 11. Document ID: US 6379653 B1

L5: Entry 11 of 56

File: USPT

Apr 30, 2002

US-PAT-NO: 6379653

DOCUMENT-IDENTIFIER: US 6379653 B1

TITLE: Tooth bleaching

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc	Image
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☐ 12. Document ID: US 6361989 B1

L5: Entry 12 of 56

File: USPT

Mar 26, 2002

US-PAT-NO: 6361989

DOCUMENT-IDENTIFIER: US 6361989 B1

TITLE: .alpha.-amylase and .alpha.-amylase variants

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc	Image
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☐ 13. Document ID: US 6297038 B1

L5: Entry 13 of 56

File: USPT

Oct 2, 2001

US-PAT-NO: 6297038

DOCUMENT-IDENTIFIER: US 6297038 B1

TITLE: Amylase variants

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC	Draw Desc	Image
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☐ 14. Document ID: US 6297037 B1

L5: Entry 14 of 56

File: USPT

Oct 2, 2001

US-PAT-NO: 6297037

DOCUMENT-IDENTIFIER: US 6297037 B1

TITLE: Oxidatively stable alpha-amylase

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC	Draw Desc	Image
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☐ 15. Document ID: US 6287826 B1

L5: Entry 15 of 56

File: USPT

Sep 11, 2001

US-PAT-NO: 6287826

DOCUMENT-IDENTIFIER: US 6287826 B1

TITLE: Enzymatic preparation of glucose syrup from starch

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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☐ 16. Document ID: US 6228590 B1

L5: Entry 16 of 56

File: USPT

May 8, 2001

US-PAT-NO: 6228590

DOCUMENT-IDENTIFIER: US 6228590 B1

TITLE: Method of selection for genes encoding secreted and transmembrane proteins

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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☐ 17. Document ID: US 6211134 B1

L5: Entry 17 of 56

File: USPT

Apr 3, 2001

US-PAT-NO: 6211134

DOCUMENT-IDENTIFIER: US 6211134 B1

TITLE: Mutant .alpha.-amylase

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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☐ 18. Document ID: US 6204232 B1

L5: Entry 18 of 56

File: USPT

Mar 20, 2001

US-PAT-NO: 6204232

DOCUMENT-IDENTIFIER: US 6204232 B1

TITLE: .alpha.-amylase mutants

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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☐ 19. Document ID: US 6197565 B1

L5: Entry 19 of 56

File: USPT

Mar 6, 2001

US-PAT-NO: 6197565

DOCUMENT-IDENTIFIER: US 6197565 B1

TITLE: .alpha.-Amylase variants

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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☐ 20. Document ID: US 6187576 B1

L5: Entry 20 of 56

File: USPT

Feb 13, 2001

US-PAT-NO: 6187576

DOCUMENT-IDENTIFIER: US 6187576 B1

TITLE: .alpha.-amylase mutants

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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WEST[Generate Collection](#)[Print](#)**Search Results - Record(s) 21 through 30 of 56 returned.**☐ 21. Document ID: US 6149894 A

L5: Entry 21 of 56

File: USPT

Nov 21, 2000

US-PAT-NO: 6149894

DOCUMENT-IDENTIFIER: US 6149894 A

TITLE: Method for the manufacture of toothpaste

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc	Image
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☐ 22. Document ID: US 6143708 A

L5: Entry 22 of 56

File: USPT

Nov 7, 2000

US-PAT-NO: 6143708

DOCUMENT-IDENTIFIER: US 6143708 A

TITLE: .alpha.-amylase mutants

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc	Image
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☐ 23. Document ID: US 6093562 A

L5: Entry 23 of 56

File: USPT

Jul 25, 2000

US-PAT-NO: 6093562

DOCUMENT-IDENTIFIER: US 6093562 A

TITLE: Amylase variants

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC	Draw Desc	Image
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☐ 24. Document ID: US 6087147 A

L5: Entry 24 of 56

File: USPT

Jul 11, 2000

US-PAT-NO: 6087147

DOCUMENT-IDENTIFIER: US 6087147 A

TITLE: .alpha.-amylase gene having ability for highly producing maltopentaose, vector containing said gene and transformant

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC	Draw Desc	Image
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☐ 25. Document ID: US 6080568 A

L5: Entry 25 of 56

File: USPT

Jun 27, 2000

US-PAT-NO: 6080568

DOCUMENT-IDENTIFIER: US 6080568 A

TITLE: Mutant .alpha.-amylase comprising modification at residues corresponding to A210, H405 and/or T412 in Bacillus licheniformis

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KM/C	Draw Desc	Image
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☐ 26. Document ID: US 6008026 A

L5: Entry 26 of 56

File: USPT

Dec 28, 1999

US-PAT-NO: 6008026

DOCUMENT-IDENTIFIER: US 6008026 A

TITLE: Mutant .alpha.-amylase having introduced therein a disulfide bond

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KM/C	Draw Desc	Image
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☐ 27. Document ID: US 5958739 A

L5: Entry 27 of 56

File: USPT

Sep 28, 1999

US-PAT-NO: 5958739

DOCUMENT-IDENTIFIER: US 5958739 A

TITLE: Mutant .alpha.-amylase

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KM/C	Draw Desc	Image
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☐ 28. Document ID: US 5928381 A

L5: Entry 28 of 56

File: USPT

Jul 27, 1999

US-PAT-NO: 5928381

DOCUMENT-IDENTIFIER: US 5928381 A

TITLE: Use of an .alpha.-amylase modified to improve oxidation stability in a combined desizing and bleaching process

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KM/C	Draw Desc	Image
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☐ 29. Document ID: US 5849549 A

L5: Entry 29 of 56

File: USPT

Dec 15, 1998

US-PAT-NO: 5849549

DOCUMENT-IDENTIFIER: US 5849549 A

TITLE: Oxidatively stable alpha-amylase

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KIMC	Draw Desc	Image
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☐ 30. Document ID: US 5824532 A

L5: Entry 30 of 56

File: USPT

Oct 20, 1998

US-PAT-NO: 5824532

DOCUMENT-IDENTIFIER: US 5824532 A

TITLE: Oxidativley stable alpha-amylase

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KIMC	Draw Desc	Image
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L2 not l3	56

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WEST[Generate Collection](#)[Print](#)**Search Results - Record(s) 31 through 40 of 56 returned.**☐ 31. Document ID: US 5763385 A

L5: Entry 31 of 56

File: USPT

Jun 9, 1998

US-PAT-NO: 5763385

DOCUMENT-IDENTIFIER: US 5763385 A

TITLE: Modified .alpha.-amylases having altered calcium binding properties

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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☐ 32. Document ID: US 5736499 A

L5: Entry 32 of 56

File: USPT

Apr 7, 1998

US-PAT-NO: 5736499

DOCUMENT-IDENTIFIER: US 5736499 A

TITLE: Mutant A-amylase

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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☐ 33. Document ID: US 5731280 A

L5: Entry 33 of 56

File: USPT

Mar 24, 1998

US-PAT-NO: 5731280

DOCUMENT-IDENTIFIER: US 5731280 A

TITLE: Recombinant lipase and alpha-amylase variants

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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☐ 34. Document ID: US 5716812 A

L5: Entry 34 of 56

File: USPT

Feb 10, 1998

US-PAT-NO: 5716812

DOCUMENT-IDENTIFIER: US 5716812 A

TITLE: Methods and compositions for synthesis of oligosaccharides, and the products formed thereby

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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☐ 35. Document ID: US 5635378 A

L5: Entry 35 of 56

File: USPT

Jun 3, 1997

US-PAT-NO: 5635378

DOCUMENT-IDENTIFIER: US 5635378 A

TITLE: Variant-type carbohydrate hydrolase, variant gene of the enzyme and method for producing oligosaccharide using the enzyme

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KM/C	Draw Desc	Image
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☐ 36. Document ID: US 5631149 A

L5: Entry 36 of 56

File: USPT

May 20, 1997

US-PAT-NO: 5631149

DOCUMENT-IDENTIFIER: US 5631149 A

TITLE: Variant-type carbohydrate hydrolase, variant gene of the enzyme and method for producing oligosaccharide using the enzyme

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KM/C	Draw Desc	Image
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☐ 37. Document ID: US 5538882 A

L5: Entry 37 of 56

File: USPT

Jul 23, 1996

US-PAT-NO: 5538882

DOCUMENT-IDENTIFIER: US 5538882 A

TITLE: Variant-type carbohydrate hydrolase, variant gene of the enzyme and method for producing oligosaccharide using the enzyme

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KM/C	Draw Desc	Image
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☐ 38. Document ID: US 5364782 A

L5: Entry 38 of 56

File: USPT

Nov 15, 1994

US-PAT-NO: 5364782

DOCUMENT-IDENTIFIER: US 5364782 A

TITLE: Mutant microbial .alpha.-amylases with increased thermal, acid and/or alkaline stability

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KM/C	Draw Desc	Image
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☐ 39. Document ID: US 5079154 A

L5: Entry 39 of 56

File: USPT

Jan 7, 1992

US-PAT-NO: 5079154

DOCUMENT-IDENTIFIER: US 5079154 A

TITLE: Mutant resistant to cell membrane synthesis inhibitor and process for preparing the same

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC	Draw Desc	Image
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☐ 40. Document ID: US 4727026 A

L5: Entry 40 of 56File: USPTFeb 23, 1988

US-PAT-NO: 4727026
DOCUMENT-IDENTIFIER: US 4727026 A

TITLE: Method for direct saccharification of raw starch using enzyme produced by a basidiomycete belonging to the genus Corticium

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC	Draw Desc	Image
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L2 not 13	56

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WEST[Generate Collection](#)[Print](#)**Search Results - Record(s) 41 through 50 of 56 returned.**☐ 41. Document ID: US 4425737 A

L5: Entry 41 of 56

File: USPT

Jan 17, 1984

US-PAT-NO: 4425737

DOCUMENT-IDENTIFIER: US 4425737 A

TITLE: Methods for mutant selection in cereal crops

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KM/C	Draw Desc	Image
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☐ 42. Document ID: US 4316956 A

L5: Entry 42 of 56

File: USPT

Feb 23, 1982

US-PAT-NO: 4316956

DOCUMENT-IDENTIFIER: US 4316956 A

TITLE: Fermentation process

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KM/C	Draw Desc	Image
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☐ 43. Document ID: JP 2002112792 A

L5: Entry 43 of 56

File: JPAB

Apr 16, 2002

PUB-NO: JP02002112792A

DOCUMENT-IDENTIFIER: JP 2002112792 A

TITLE: HIGHLY PRODUCTIVE α -AMYLASE

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KM/C	Draw Desc	Image
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☐ 44. Document ID: JP 04108386 A

L5: Entry 44 of 56

File: JPAB

Apr 9, 1992

PUB-NO: JP404108386A

DOCUMENT-IDENTIFIER: JP 04108386 A

TITLE: VARIANT ALPHA-AMYLASE

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KM/C	Draw Desc	Image
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☐ 45. Document ID: WO 9920768 A1

L5: Entry 45 of 56

File: EPAB

Apr 29, 1999

PUB-NO: WO009920768A1
DOCUMENT-IDENTIFIER: WO 9920768 A1
TITLE: METHODS FOR PRODUCING AMYLASE ENZYMES

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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☐ 46. Document ID: WO 9919467 A1

L5: Entry 46 of 56

File: EPAB

Apr 22, 1999

PUB-NO: WO009919467A1
DOCUMENT-IDENTIFIER: WO 9919467 A1
TITLE: alpha -AMYLASE MUTANTS

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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☐ 47. Document ID: WO 9830669 A1

L5: Entry 47 of 56

File: EPAB

Jul 16, 1998

PUB-NO: WO009830669A1
DOCUMENT-IDENTIFIER: WO 9830669 A1
TITLE: PROTEASE AND AMYLASE-CONTAINING DETERGENT

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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☐ 48. Document ID: WO 9623874 A1

L5: Entry 48 of 56

File: EPAB

Aug 8, 1996

PUB-NO: WO009623874A1
DOCUMENT-IDENTIFIER: WO 9623874 A1
TITLE: A METHOD OF DESIGNING ALPHA-AMYLASE MUTANTS WITH PREDETERMINED PROPERTIES

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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☐ 49. Document ID: WO 9605295 A2

L5: Entry 49 of 56

File: EPAB

Feb 22, 1996

PUB-NO: WO009605295A2
DOCUMENT-IDENTIFIER: WO 9605295 A2
TITLE: AN IMPROVED CLEANING COMPOSITION

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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☐ 50. Document ID: WO 9418314 A1

L5: Entry 50 of 56

File: EPAB

Aug 18, 1994

PUB-NO: WO009418314A1

• DOCUMENT-IDENTIFIER: WO 9418314 A1
TITLE: OXIDATIVELY STABLE ALPHA-AMYLASE

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KM/C	Draw Desc	Image
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WEST[Generate Collection](#)[Print](#)**Search Results - Record(s) 51 through 56 of 56 returned.**☐ 51. Document ID: WO 9414951 A1

L5: Entry 51 of 56

File: EPAB

Jul 7, 1994

PUB-NO: WO009414951A1

DOCUMENT-IDENTIFIER: WO 9414951 A1

TITLE: RECOMBINANT LIPASE AND ALPHA-AMYLASE VARIANTS

[Full](#) [Title](#) [Citation](#) [Front](#) [Review](#) [Classification](#) [Date](#) [Reference](#) [Sequences](#) [Attachments](#)[KWC](#) [Draw Desc](#) [Image](#)☐ 52. Document ID: WO 9902702 A1 MX 2000000384 A1 AU 9884738 A US 6008026 A EP 1002098 A1 JP 2001509389 W

L5: Entry 52 of 56

File: DWPI

Jan 21, 1999

DERWENT-ACC-NO: 1999-120903

DERWENT-WEEK: 200158

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TITLE: New mutant α -amylase derivative containing a disulphide bond - useful for liquefying starch, as well as for cleaning soiled laundry and/or soiled dishes when present in a detergent composition

[Full](#) [Title](#) [Citation](#) [Front](#) [Review](#) [Classification](#) [Date](#) [Reference](#) [Sequences](#) [Attachments](#)[KWC](#) [Draw Desc](#) [Image](#)☐ 53. Document ID: US 6440716 B1 WO 9623874 A1 AU 9644834 A BR 9607013 A EP 808363 A1 MX 9705906 A1 JP 11500003 W KR 98701901 A US 5989169 A US 6022724 A

L5: Entry 53 of 56

File: DWPI

Aug 27, 2002

DERWENT-ACC-NO: 1996-371424

DERWENT-WEEK: 200259

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TITLE: Alpha-amylase variants and methods of production - have altered properties such as calcium dependency, substrate binding and stability

[Full](#) [Title](#) [Citation](#) [Front](#) [Review](#) [Classification](#) [Date](#) [Reference](#) [Sequences](#) [Attachments](#)[KWC](#) [Draw Desc](#) [Image](#)☐ 54. Document ID: JP 06253836 A US 5635378 A JP 95040938 B2 US 5538882 A US 5631149 A

L5: Entry 54 of 56

File: DWPI

Sep 13, 1994

DERWENT-ACC-NO: 1994-328987

DERWENT-WEEK: 199728

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TITLE: Variant carbohydrate hydrolase(s) with increased activity - consists of e.g. alpha-amylase with tyrosine residue in enzyme centre, useful for mass-prodn. of oligosaccharide(s)

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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☐ 55. Document ID: JP 01030586 A JP 2512950 B2

L5: Entry 55 of 56

File: DWPI

Feb 1, 1989

DERWENT-ACC-NO: 1989-079998

DERWENT-WEEK: 199718

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TITLE: Prepn. of enzyme-fixed membrane - by immersing albumin- polyvinyl:butyral membrane in aq. aldehyde soln. and aq. enzyme soln.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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☐ 56. Document ID: JP 58071897 A JP 85009799 B

L5: Entry 56 of 56

File: DWPI

Apr 28, 1983

DERWENT-ACC-NO: 1983-55030K

DERWENT-WEEK: 198323

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TITLE: Determn. of amylase activity by adding mutarotase and glucosidase - as supplementary enzymes in soln. contg. alpha glucoside polymer as substrate, and measuring change in polarisation of soln.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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